Prenatal Nutrition

Weed Army Community Hospital

Ft. Irwin, California

Nutrition Care Division

Subjects

- General Nutrition
- Weight Gain
- Special Considerations
- Remedies for Common Ailments

General Nutrition

Why is Mom's Nutrition Intake so Important During Pregnancy?

- Provides the sole source of nourishment for the developing fetus.
- Prevents depletion of mom's nutrient stores.

Eat a Well Balanced Diet

- Choose whole grain, whole fruit, whole vegetable, low-fat dairy, lean meats, unsaturated oils, and water.
- Visit the new Food Guide Pyramid at www.mypyramid.gov for more information and to rec
  healthy, well balanced

MyPyramid for Pregnancy and Breastfeeding For Moms

***PREGNANCY IS NO TIME FOR DIETING OR FADDISH BEHAVIOR!**

How Many Extra Calories Should I Eat?

- During your second and third trimesters and through breastfeeding you require about 300 extra calories per day.
- Consuming 300 extra calories per day is generally effortless and achieved by consuming moderate portion sizes and following a normal eating pattern of 3 meals and 2 snacks per day.
- NOT EATING FOR TWO!

Cont…Extra Calories

300 calories translates into:

- **½ bagel, 1 Tbsp cream cheese, and 1 8-oz cup skim milk.**
- **1 cup corn flakes, 1 5-inch banana, and 1-8oz cup skim milk.**
- **1-6oz cup fruit juice and a turkey sandwich with 2 slices whole wheat bread, 2 ounces turkey, lettuce, tomato, and mustard.**

Encourage Adequate Calcium Intake to Support Fetal Bone Development

- Calcium intake: 1200 mg per day.
- Consume dietary sources high in calcium to include 3+ servings of milk, cheese, yogurt, or calcium fortified foods per day.
- May consider 600 mg calcium acetate twice per day if diet omits milk, cheese, or yogurt.
- Avoid taking dairy or calcium supplement with prenatal vitamin or iron supplement.

Encourage Adequate Iron Intake to Support Oxygenation

- **Iron intake: 30 mg per day required after first trimester.**
- **Consume dietary sources high in iron to include meats, beans, nuts, and dark green vegetables.**

Cont…Iron

- **Difficult to meet from diet alone.**
- **Take prenatal vitamins once per day or take 30 mg per day iron supplement with a good source of vitamin C to include whole fruit or juice.**
- **May split prenatal vitamin or iron supplement into two, half doses daily to decrease stomach irritation.**
- **Avoid taking dairy or calcium supplement with prenatal vitamin or iron supplement.**

Encourage Adequate Folate Intake to Support Fetal Cell Division

- Adequate intake of 400 ug per day before conception.
- Increase intake of 200 ug more per day after conception.
- Consume dietary sources high in folate to include enriched cereal, grains, breads, and dark leafy vegetables.

Identify Vegetarian Considerations

- Take prenatal vitamin daily.
- Include soy or rice milk fortified with calcium and B12 or take calcium and B12 supplementation.
- Intake at least 6 ounces of meat equivalents in beans and tofu.
- Ensure adequate weight gain.

Weight Gain

Describe an Adequate Pattern and Rate of Weight Gain in Pregnancy

- 2-4 lbs first trimester.
- 10-11 lbs second trimester.
- 12-13 lbs third trimester.
- Rule of thumb: gain 5 lbs in first trimester then about 1 lb per week for the remainder of the pregnancy.

Estimate Adequate Weight Gain from BMI

- **Underweight=BMI <18.5 should gain 28-40lbs.**
- **Normal Weight=BMI 19-25 should gain 25-30lbs.**
- **Overweight=BMI 25-30 should gain 15-25lbs.**
- **Obese=BMI >30 should gain 15lbs.**

Cont…Weight Gain

- Twin Gestation: 35-45lbs.
- Triplet Gestation: 50lbs.

Identify Weight Gain Distribution

- 8 lbs for fetus.
- 7 lbs from protein and fat sources.
- 4 lbs blood.
- 3 lbs tissue fluids.
- 2 lbs uterus.
- 2 lbs amniotic fluids.
- 2 lbs placenta and umbilical cord.
- 1 lb breasts.
- YOU ARE NOT GOING TO GAIN 30 LBS OF FAT!

Special Considerations

Define Listeria and Identify Potential Sources of Exposure

- **Listeria, a common bacteria usually found in soil and water may cause food borne illness and increase potential for premature birth or fetal death.**
- **Reverse Osmosis or RO water will filter out Listeria.**
- **Avoid unpasteurized milk, cheese, and yogurt.**

Cont…Listeria

- Milk, cheese, and yogurt in the U.S. must be pasteurized.
- Imported soft cheeses may not be pasteurized to include feta, Brie, Camembert, Roquefort, and Mexican soft cheese.
- Avoid raw eggs, fish, and undercooked meat.
- Heat hot dogs, lunch meats, and deli meat until steaming.

Define Methyl Mercury and Identify Potential Sources of Exposure

- **Methyl mercury is a chemical element, pollutant in water, which may damage the developing nervous system of the fetus.**

***Avoid swordfish, shark, tile fish, king mackerel, and tuna steak.**

Should I Avoid Fish While I am Pregnant?

- No
- Fish should be included in a healthy, well-balanced diet.
- You can safely eat up to 12 oz of low methyl mercury fish per week to include light tuna, salmon, trout, flounder, Pollock, cod, clams, catfish, and shrimp.

Cont…Fish

- **Fish is a low-fat food and great source of protein, vitamins, minerals, and Omega-3 fat, which supports fetal eye and brain development.**
- **Use Caution if taking an Omega-3 fat dietary supplement.**

***Supplements are not considered a food or drug and thus are not regulated by the FDA.**

Cont…Fish

*Read labels to ensure the product is methyl mercury free!

*Consider purchasing only United States Pharmacopeia certified dietary supplements which ensure quality, potency, and purity.

Can I Have Caffeine?

- **Extremely high levels of paraxanthine, a caffeine metabolite, may make conception difficult and/or may cause spontaneous abortion, especially during the first trimester.**

Can I Have Caffeine?

- **However, many medical research centers including the National Institutes of Health (NIH) and organizations to include the American College of Obstetricians and Gynecologists suggest moderate caffeine intake is unlikely to cause a significantly decreased risk of conception or significantly increased risk for miscarriage.**

http://cerhr.niehs.nih.gov/common/caffeine.html

Cont…Caffeine

- **Conservative moderate intake is defined as less than 150 mg caffeine, while liberal moderate intake is defined as less than 300 mg per day.**
- **One 8 oz cup of coffee or one-shot (1.5 ounces of espresso) is 95 mg.**
- **One 8 oz cup of tea is 47 mg.**
- **One 8.3 oz Red Bull is 76 mg.**
- **One square of baker's chocolate is 23 mg.**

http://www.nal.usda.gov/fnic/foodcomp/search/

What About Artificial Sweeteners?

- Use in moderation, less than 3-4 servings of artificially sweetened foods or drinks per day.
- Saccharin (Sweet ‘n’ Lo

Acesulfame-K (Sweet One)

Aspartame (Equal)

Sucralose (Splenda)

Stevia

Cont…Artificial Sweeteners

- Saccharin and Acesulfame-K can cross the placental barrier and appear in breast milk.
- Saccharin, although not classified as a teratogen, in high doses is weakly carcinogenic in rats.
- Sucralose and Aspartame are either 93-97% eliminated from the body or metabolized into harmless substances, respectively.

Define Pica

- Cravings for non-food items to include ice, freezer frost, baking soda, baking powder, corn starch, laundry starch, baby powder, clay or dirt.
- The incidence of Pica is not limited to any geographical area, race, gender, culture, or social status.

Cont…Pica

- **Consequences could include:**
  - **Malnutrition by replacing nutritious foods**
  - **Toxicity of heavy metals or iron and calcium deficiencies secondary to binding with non-food substance.**
  - **Intestinal obstruction.**
- **Can result in low hemoglobin levels in the fetus inhibiting the oxygenation capacity.**

Discuss Effects of Alcohol, Tobacco, and Illegal Drug Use

- May lead to congenital malformations and decreased birth weight.
- Omit all alcohol, smoking, and illegal drug use.

*For Tobacco Cessation assistance contact Preventative Medicine at (760) 380-3235

*For other assistance contact the Army Substance Abuse Program at (760) 380-3631

Discover Herbs, Botanicals, and Supplements

- Pregnant women should not use herbs and botanical supplements unless cleared by their obstetrician/gynecologist.
- Most commercial brand herbal teas comply with the FDA.
- Non-commercial herbal teas may not comply with the FDA.
- Avoid kava, chasteberry, dong quai, Asian ginseng, licorice root, and Saw Palmetto.

Should I Breastfeed?

- Yes!
- Breastfeeding, when done properly is not painful and has numerous benefits:
  - Post partum weight management
  - Mother and child bonding
  - Decreased risk of infant illness and allergy
  - Free (can save at least 1k annually)
- Breastfeeding is adequate as a sole source of nutrition for 4-6 months, but even feeding for 6 weeks has advantages.

Remedies for Common Ailments

Explain Remedies for Morning Sickness

- Avoid offensive odors, spicy foods, high-fat meals.
- Drink fluid between meals.
- Eat saltines, baked potato chips, or low-fat crackers before rising.
- Drink lemonade or ginger ale before rising.
- Morning sickness usually resolves at 17 weeks.

Explain Remedies for Constipation

- Drink extra fluid, at least 8 glasses of water per day, goal is 2-3 quarts.
- Eat at least 28 grams of fiber, choose whole fruit, whole vegetables, and whole grains.
- Remain physically active per obstetrician/gynecologist recommendations.
- Avoid laxative use, consult obstetrician/gynecologist.

Explain Remedies for Extremity Swelling

- Remain physically active per obstetrician/gynecologist recommendations.
- Avoid excessive salt, no salt shaker at the table.

Explain Remedies for Heartburn

- Eat slow, small, frequent meals.
- Avoid spicy and high-fat foods.
- Allow 2 hours for the stomach to empty before laying down.
- Avoid antacids unless approved by obstetrician/gynecologist secondary to potential nutrient interaction with iron and containing high amounts of aluminum.

Phone Numbers

- **Central Appointments**

  1-866-460-5305
- **Nutrition Care Division**

  380-3178

Questions ?